

**TRANSMITTAL LETTER TO THE UNITED STATES
DESIGNATED/ELECTED OFFICE (DO/EO/US)
CONCERNING A FILING UNDER 35 U.S.C. 371**

ATTORNEY'S DOCKET NUMBER

05725.0927

Customer No.: 22,852

U.S. APPLICATION NO.

(If known, see 37CFR1.5)

09/890805

INTERNATIONAL APPLICATION NO.

PCT/FR00/00271

INTERNATIONAL FILING DATE

February 4, 2000

PRIORITY DATE CLAIMED

February 5, 1999

TITLE OF INVENTION

DETERGENT COSMETIC COMPOSITIONS AND USE

APPLICANTS FOR DO/EO/US


1) Serge RESTLE and 2) Nathalie GARNIER

Applicant(s) herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:

1. ☒ This is a **FIRST** submission of items concerning a filing under 35 U.S.C. 371.
2. ☐ This is a **SECOND** or **SUBSEQUENT** submission of items concerning a filing under 35 U.S.C. 371.
3. ☐ This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (21) indicated below.
4. ☒ The US has been elected by the expiration of 19 months from the priority date (Article 31).
5. ☒ A copy of the International Application as filed (35 U.S.C. 371 (c)(2)).
 - a. ☐ is attached hereto (required only if not communicated by the International Bureau).
 - b. ☒ has been communicated by the International Bureau.
 - c. ☐ is not required, as the application was filed with the United States Receiving Office (RO/US).
6. ☒ An English language translation of the International Application as filed (35 U.S.C. 371 (c)(2)).
 - a. ☒ is attached hereto.
 - b. ☐ has been previously submitted under 35 U.S.C. 154 (d)(4).
7. ☒ Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371 (c)(3)).
 - a. ☐ are attached hereto (required only if not communicated by the International Bureau).
 - b. ☐ have been communicated by the International Bureau.
 - c. ☐ have not been made; however, the time limit for making such amendments has NOT expired.
 - d. ☒ have not been made and will not be made.
8. ☐ An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371 (c)(3)).
9. ☐ An oath or declaration of the inventor(s) (35 U.S.C. 371 (c)(4)).
10. ☐ An English language translation of the annexes of the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371 (c)(5)).

Items 11 to 20 below concern document(s) or information included:

11. ☒ Information Disclosure Statement under 37 CFR 1.97 and 1.98
12. ☐ An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.
13. ☒ A **FIRST** preliminary amendment.
14. ☐ A **SECOND** or **SUBSEQUENT** preliminary amendment.
15. ☐ A Substitute specification.
16. ☐ A change of power of attorney and/or address letter.
17. ☐ A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 35 U.S.C. 1.821-1.825.
18. ☐ A second copy of the published international application under 35 U.S.C. 154 (d)(4).
19. ☐ A second copy of the English language translation of the international application 35 U.S.C. 154 (d)(4).
20. ☒ Other items or information:
 - a. ☒ Copy of cover page of International Publication No. WO 00/45781 with English Abstract.
 - b. ☐ Copy of Notification of Missing Requirements.
 - c. ☐

U.S. APPLICATION NO. (If known, see 37 CFR 1.55) 09/890805		INTERNATIONAL APPLICATION NO. PCT/FR00/00271		ATTORNEY'S DOCKET NO.: 05725.0927	
21. ■ The following fees are submitted:				CALCULATIONS PTO USE ONLY	
BASIC NATIONAL FEE (37 CFR 1.492 (a) (1) - (5)):					
Neither international preliminary examination fee (37 CFR 1.482) nor international search fee (37 CFR 1.445(a)(2)) paid to USPTO and International Search Report not prepared by the EPO or JPO				\$1000.00	
International preliminary examination fee (37 CFR 1.482) not paid to USPTO but International Search Report prepared by the EPO or JPO				\$860.00	
International preliminary examination fee (37 CFR 1.482) not paid to USPTO but International Search fee (37 CFR 1.445(a)(2)) paid to USPTO				\$710.00	
International preliminary examination fee (37 CFR 1.482) paid to USPTO but all claims did not satisfy provisions of PCT Article 33(1)-(4)				\$690.00	
International preliminary examination fee (37 CFR 1.482) paid to USPTO and all claims satisfied provisions of PCT Article 33 (1)-(4)				\$100.00	
ENTER APPROPRIATE BASIC FEE AMOUNT =				\$860.00	
Surcharge of \$130.00 for furnishing the oath or declaration later than months from the earliest claimed priority date (37 CFR 1.492 (e)). <input type="checkbox"/> 20 <input type="checkbox"/> 30				\$	
CLAIMS	NUMBER FILED	NUMBER EXTRA	RATE		
Total Claims	53	- 20 =	33	x \$18.00	\$594.00
Independent Claims	4	- 3 =	1	x \$80.00	\$80.00
MULTIPLE DEPENDENT CLAIM(S) (if applicable)			+ \$270.00	\$	
TOTAL OF THE ABOVE CALCULATIONS =				\$1534.00	
<input type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27. The fees indicated above are reduced by 1/2.				\$	
SUBTOTAL =				\$1534.00	
Processing fee of \$130.00 for furnishing the English translation later than months from the earliest priority date (37 CFR 1.492(f)). <input type="checkbox"/> 20 <input type="checkbox"/> 30				\$	
TOTAL NATIONAL FEE =				\$1534.00	
Fee for recording the enclosed assignment (37 CFR 1.21 (h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40.00 per property.				+	
TOTAL FEES ENCLOSED =				\$1534.00	
				Amount to be refunded:	\$
				charged:	\$
<p>a. ■ A check in the amount of \$ <u>1534.00</u> to cover the above fees is enclosed.</p> <p>b. <input type="checkbox"/> Please charge my Deposit Account No. _____ in the amount of \$ _____ to cover the above fees. A duplicate copy of this sheet is enclosed.</p> <p>c. ■ The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. <u>06-0916</u>. A duplicate copy of this sheet is enclosed.</p> <p>d. <input type="checkbox"/> Fees are to be charged to a credit card. WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.</p>					
NOTE: Where an appropriate time limit under 37 CFR 1.494 or 1.495 has not been met, a petition to revive (37 CFR 1.137 (a) or (b)) must be filed and granted to restore the application to pending status.					
SEND ALL CORRESPONDENCE TO:					
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Washington, D.C. 20005-3315					
CPE/FPD/sci					
DATED: August 3, 2001					
				 SIGNATURE Ernest F. Chapman/25,961 NAME/REGISTRATION NO.	

PATENT
Customer No. 22,852
Attorney Docket No. 05725.0927-00

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re National Stage of International)
Application No. PCT/FR00/00271 of:)
Serge RESTLE et al.) Group Art Unit: Unassigned
Serial No.: Unassigned) Examiner: Unassigned
Filed: August 3, 2001)
For: DETERGENT COSMETIC)
COMPOSITIONS AND USE)

PRELIMINARY AMENDMENT

Assistant Commissioner for Patents
Washington, DC 20231

Sir:

Prior to the examination of the above application, please amend this
application as follows:

IN THE CLAIMS:

Please cancel Claims 1-23 and add the following new claims 24-76:

--24. A detergent and conditioning cosmetic composition comprising (A) a
cosmetically acceptable aqueous medium, (B) a washing base comprising at least
one anionic surfactant and at least one amphoteric surfactant, (C) at least one
water-insoluble carboxylic acid ester chosen from

- 1)- monoesters derived from reacting saturated and unsaturated, linear and branched monocarboxylic acids with saturated and unsaturated, linear and branched monoalcohols,
- 2)- di- and triesters derived from reacting saturated and unsaturated, linear and branched di- and tricarboxylic acids with saturated and unsaturated, linear and branched monoalcohols,
- 3)- mono-, di- and triesters derived from reacting saturated and unsaturated, linear and branched di- and tricarboxylic acids with saturated and unsaturated, linear and branched dialcohols,
- 4)- monoesters derived from reacting saturated and unsaturated, linear and branched monocarboxylic acids with saturated and unsaturated, linear and branched dialcohols,
- 5)- di- and triesters derived from reacting saturated and unsaturated, linear and branched monocarboxylic acids with unsaturated dialcohols,
- 6)- di- and triesters derived from reacting saturated and unsaturated, linear and branched monocarboxylic acids with saturated dialcohols having more than 4 carbon atoms,
- 7)- mono- and diesters derived from reacting saturated and unsaturated, linear and branched monocarboxylic acids with saturated trialcohols,
- 8)- triesters derived from reacting saturated and unsaturated, linear and branched monocarboxylic acids with saturated trialcohols having more than 3 carbon atoms,
- 9)- mono-, di- and triesters derived from reacting saturated and unsaturated, linear and branched monocarboxylic acids with unsaturated trialcohols,

10)- mono-, di- and triesters derived from reacting saturated and unsaturated, linear and branched di- and tricarboxylic acids with saturated and unsaturated, linear and branched trialcohols,
the total number of carbon atoms of said at least one water-insoluble carboxylic acid ester not exceeding 27 if said at least one ester is saturated and not exceeding 50 if said at least one ester comprises at least one unsaturation,
the concentration of said at least one water-insoluble carboxylic acid ester in said composition being greater than 1% weight with respect to the total weight of the composition,
the composition being devoid of cationic surfactant, and
the anionic surfactant:amphoteric surfactant ratio by weight being less than or equal to 3:1.

25. The composition of claim 24 wherein said washing base is present at a content by weight ranging from 4% to 50% by weight with respect to the total weight of the composition.

26. The composition of claim 24 wherein said washing base is present at a content by weight ranging from 6% to 35% by weight with respect to the total weight of the composition.

27. The composition of claim 24 wherein said washing base is present at a content by weight ranging from 8% to 25% by weight with respect to the total weight of the composition.

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28. The composition of claim 24 wherein said at least one anionic surfactant is present in concentrations ranging from 3 to 30% by weight with respect to the total weight of the composition.

29. The composition of claim 24 wherein said at least one anionic surfactant is present in concentrations ranging from 5 to 20% by weight with respect to the total weight of the composition.

30. The composition of claim 24 wherein said at least one amphoteric surfactant is present in concentrations ranging from 1 to 20% by weight with respect to the total weight of the composition.

31. The composition of claim 24 wherein said at least one amphoteric surfactant is present in concentrations ranging from 1.5 to 15% by weight respect to the total weight of the composition.

32. The composition of claim 24 wherein said anionic surfactant::amphoteric surfactant ratio by weight ranges from 0.2:1 to 3:1.

33. The composition of claim 24 wherein said anionic surfactant::amphoteric surfactant ratio by weight ranges from 0.4:1 to 2.5:1.

34. The composition of claim 24 wherein at least one water-insoluble carboxylic acid ester is chosen from:

1)- monoesters derived from reacting saturated and unsaturated, linear and branched C₁-C₄₉ monocarboxylic acids with saturated and unsaturated, linear and branched C₁-C₄₉ monoalcohols,

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- 2)- di- and triesters derived from reacting saturated and unsaturated, linear and branched C₂-C₄₈ di- and tricarboxylic acids with saturated and unsaturated, linear and branched C₁-C₄₉ monoalcohols,
- 3)- mono-, di- and triesters derived from reacting saturated and unsaturated, linear and branched C₂-C₄₉ di- and tricarboxylic acids with saturated and unsaturated, linear and branched C₁-C₄₉ dialcohols,
- 4)- monoesters derived from reacting saturated and unsaturated, linear and branched C₁-C₄₈ monocarboxylic acids with saturated and unsaturated, linear and branched C₂-C₄₉ dialcohols,
- 5)- di- and triesters derived from reacting saturated and unsaturated, linear and branched C₁-C₄₆ monocarboxylic acids with unsaturated C₂-C₄₈ dialcohols,
- 6) di- and triesters derived from reacting saturated and unsaturated, linear and branched C₁-C₄₆ monocarboxylic acids with saturated dialcohols having more than 4 carbon atoms,
- 7)- mono- and diesters derived from reacting saturated and unsaturated, linear and branched C₁-C₄₇ monocarboxylic acids with saturated C₃-C₄₉ trialcohols,
- 8)- triesters derived from reacting saturated and unsaturated, linear and branched C₁-C₄₆ monocarboxylic acids with saturated trialcohols having more than 3 carbon atoms,
- 9)- mono-, di- and triesters derived from reacting saturated and unsaturated, linear and branched C₁-C₄₇ monocarboxylic acids with unsaturated C₃-C₄₉ trialcohols,

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10)- mono-, di- and triesters derived from reacting saturated and unsaturated, linear and branched C₂-C₄₇ di- and tricarboxylic acids with saturated and unsaturated, linear and branched C₃-C₄₈ trialcohols,

35. The composition of claim 34 wherein at least one of said esters is chosen from the compounds from classes 1), 2), 4), 7) and 10).

36. The composition of claim 34 wherein said monocarboxylic acid of classes 1), 4), 5), 6), 7), 8) and 9) is chosen from saturated and unsaturated, linear and branched C₃-C₃₀ monocarboxylic acids.

37. The composition of claim 34 wherein said monoalcohols of classes 1) and 2) are chosen from saturated and unsaturated, linear and branched C₂-C₃₀ monoalcohols.

38. The composition of claim 34 wherein said di- and tricarboxylic acids of classes 2), 3) and 10) are chosen from saturated and unsaturated, linear and branched C₃-C₃₀ di- and tricarboxylic acids.

39. The composition of claim 34 wherein said dialcohols of class 3) are chosen from saturated and unsaturated, linear and branched C₂-C₃₀ dialcohols.

40. The composition of claim 34 wherein said dialcohols of class 4) are chosen from saturated and unsaturated, linear and branched C₃-C₃₀ dialcohols.

41. The composition of claim 34 wherein said unsaturated dialcohols of class 5) are chosen from unsaturated C₄-C₃₀ dialcohols.

42. The composition of claim 34 wherein said saturated dialcohols of class 5) are chosen from saturated C₅-C₄₈ dialcohols.

43. The composition of claim 34 wherein said saturated dialcohols of class 5) are chosen from saturated C₅-C₃₀ dialcohols.

44. The composition of claim 34 wherein said saturated trialcohols of class 7) are chosen from saturated C₃-C₃₀ trialcohols.

45. The composition of claim 34 wherein said saturated trialcohols of class 8) are chosen from saturated C₄-C₄₇ trialcohols.

46. The composition of claim 34 wherein said saturated trialcohols of class 8) are chosen from saturated C₄-C₃₀ trialcohols.

47. The composition of claim 34 wherein said unsaturated trialcohols of class 9) are chosen from unsaturated C₃-C₃₀ trialcohols.

48. The composition of claim 34 wherein said saturated and unsaturated, linear and branched trialcohols of class 10) are chosen from saturated and unsaturated, linear and branched C₃-C₃₀ trialcohols.

49. A detergent and conditioning cosmetic composition comprising (A) a cosmetically acceptable aqueous medium, (B) a washing base comprising at least one anionic surfactant and at least one amphoteric surfactant, (C) at least one water-insoluble carboxylic acid ester chosen from:

cetyl lactate, C₁₂-C₁₅ alkyl lactate, isostearyl lactate, lauryl lactate, linoleyl lactate, oleyl lactate, (iso)stearyl octanoate, isocetyl octanoate, octyl octanoate, cetyl octanoate, isodecyl octanoate, isononyl isononanoate, octyl isononanoate, 2-ethylhexyl isononate, octyl palmitate, octyl pelargonate, octyl stearate, octyldodecyl erucate, oleyl erucate, ethyl and isopropyl palmitates, 2-ethylhexyl palmitate,

isopropyl myristate, butyl myristate, hexyl stearate, butyl stearate, isobutyl stearate, hexyl laurate and tridecyl erucate, diethyl sebacate, diisopropyl sebacate, diisopropyl adipate, di(n-propyl) adipate, dioctyl adipate, dioctyl maleate, triisopropyl citrate, trioleyl citrate and dioctyl malate, propylene glycol monostearate, tripropylene glycol monostearate, diethylene glycol monostearate and diethylene glycol monooleate, glyceryl undecylenate, glyceryl monolaurate, glyceryl dilaurate, glyceryl monocaprate, glyceryl monocaprylate, glyceryl monostearate, glyceryl monooleate and glyceryl dioleate, glyceryl citrate and glyceryl monosuccinate.

50. The composition of claim 24 wherein said esters are present in concentrations ranging from 1.2 and 15% by weight with respect to the total weight of the composition.

51. The composition of claim 50 wherein said at least one ester is present in concentrations ranging from 1.5 to 10% by weight with respect to the total weight of the composition.

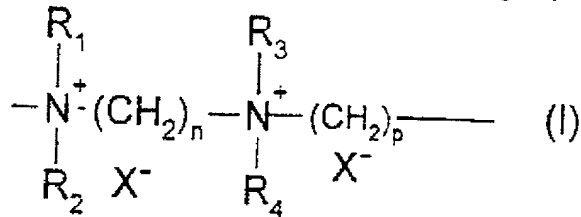
52. The composition of claim 50 wherein said at least one ester is present in concentrations ranging from 2 to 8% by weight with respect to the total weight of the composition.

53. The composition of claim 24 wherein said composition additionally comprises at least one cationic polymer.

54. The composition of claim 53 wherein said at least one cationic polymer is chosen from quaternary derivatives of cellulose ether, diallyldimethylammonium salt homopolymers and copolymers of diallyldimethylammonium salt and of at least

one monomer chosen from acrylamide, cationic polysaccharides, quaternary copolymers of vinylpyrrolidone and vinylimidazole salt.

55. The composition as claimed in claim 53 wherein said cationic polymer is chosen from polymers, comprising repeat units corresponding to the formula:



in which R_1 , R_2 , R_3 and R_4 are identical and different and denote a radical chosen from alkyl and hydroxyalkyl radicals having from 1 to 4 carbon atoms, n and p are integers ranging from 2 to 20, and X^- is an anion derived from an acid.

56. The composition of claim 53 wherein said at least one cationic polymer ranges from 0.005% to 10% by weight of the total weight of the composition.

57. The composition of claim 53 wherein said at least one cationic polymer ranges from 0.1% to 5% by weight of the total weight of the composition.

58. The composition of claim 53 wherein said at least one cationic polymer ranges from 0.25% to 3% by weight of the total weight of the composition.

59. The composition of claim 24 wherein said composition additionally comprises at least one water-soluble salt.

60. The composition of claim 59 wherein said at least one water-soluble salt is chosen from salts derived from reacting metals chosen from monovalent metals and divalent metals with an acid.

61. The composition of claim 60 wherein said at least one water-soluble salt is chosen from sodium chloride, potassium chloride, calcium chloride, magnesium sulfate, sodium citrate, and the sodium salts of phosphoric acid.

62. The composition of claim 60, wherein said at least one water-soluble salt is present at concentrations ranging from 0.1 to 10% by weight with respect to the total weight of the composition.

63. The composition of claim 60, wherein said at least one water-soluble salt is present at concentrations ranging from 0.5 to 5% by weight with respect to the total weight of the composition.

64. The composition of claim 24 wherein said composition additionally comprises at least one water-soluble alcohol.

65. The composition of claim 64 wherein said at least one water-soluble alcohol is chosen from C₁-C₆ alcohols.

66. The composition of claim 64 wherein said at least one water-soluble alcohol is chosen from ethanol, isopropanol, tert-butanol and n-butanol.

67. The composition of claim 64 wherein said at least one water-soluble alcohol is chosen from polyols.

68. The composition of claim 64 wherein said at least one water-soluble alcohol is chosen from alkylene glycols.

69. The composition of claim 64 wherein said at least one water-soluble alcohol is chosen from propylene glycol, propylene glycerol, polyalkylene glycols, and glycol ethers.

70. The composition of claim 64 wherein said at least one water-soluble alcohol is present in concentrations ranging from 0.1 to 20% by weight respect to the total weight of the composition.

71. The composition of claim 64 wherein said at least one water-soluble alcohol is present in concentrations ranging from 0.2 to 10% by weight respect to the total weight of the composition.

72. The composition of claim 24 wherein said composition additionally comprises at least one adjuvant chosen from cationic surface-active agents, anionic, nonionic and amphoteric polymers, proteins, protein hydrolysates, ceramides, pseudoceramides, fatty acids comprising linear or branched C₁₆-C₄₀ chains, hydroxy acids, vitamins, panthenol, volatile and nonvolatile silicones, UV screening agents, moisturizing agents, antidandruff agents, antiseborrheic agents, agents for combating free radicals, and opacifying agents.

73. The composition of claim 72 wherein said fatty acid comprising linear or branched C₁₆-C₄₀ chains is 18-methyl-eicosanoic acid.

74. A method for cleaning and/or removing makeup from a keratinous substance comprising applying to said keratinous substance an effective amount of a composition comprising (A) a cosmetically acceptable aqueous medium, (B) a washing base comprising at least one anionic surfactant and at least one amphoteric surfactant, (C) at least one water-insoluble carboxylic acid ester chosen from

- 1)- monoesters derived from reacting saturated and unsaturated, linear and branched monocarboxylic acids with saturated and unsaturated, linear and branched monoalcohols,
- 2)- di- and triesters derived from reacting saturated and unsaturated, linear and branched di- and tricarboxylic acids with saturated and unsaturated, linear and branched monoalcohols,
- 3)- mono-, di- and triesters derived from reacting saturated and unsaturated, linear and branched di- and tricarboxylic acids with saturated and unsaturated, linear and branched dialcohols,
- 4)- monoesters derived from reacting saturated and unsaturated, linear and branched monocarboxylic acids with saturated and unsaturated, linear and branched dialcohols,
- 5)- di- and triesters derived from reacting saturated and unsaturated, linear and branched monocarboxylic acids with unsaturated dialcohols,
- 6)- di- and triesters derived from reacting saturated and unsaturated, linear and branched monocarboxylic acids with saturated dialcohols having more than 4 carbon atoms,
- 7)- mono- and diesters derived from reacting saturated and unsaturated, linear and branched monocarboxylic acids with saturated trialcohols,
- 8)- triesters derived from reacting saturated and unsaturated, linear and branched monocarboxylic acids with saturated trialcohols having more than 3 carbon atoms,
- 9)- mono-, di- and triesters derived from reacting saturated and unsaturated, linear and branched monocarboxylic acids with unsaturated trialcohols,

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10)- mono-, di- and triesters derived from reacting saturated and unsaturated, linear and branched di- and tricarboxylic acids with saturated and unsaturated, linear and branched trialcohols,
the total number of carbon atoms of said at least one water-insoluble carboxylic acid ester not exceeding 27 if said at least one ester is saturated and not exceeding 50 if said at least one ester comprises at least one unsaturation,
the concentration of said at least one water-insoluble carboxylic acid ester in said composition being greater than 1% weight with respect to the total weight of the composition,
the composition being devoid of cationic surfactant, and
the anionic surfactant:amphoteric surfactant ratio by weight being less than or equal to 3:1.

75. A process for washing and for conditioning a keratinous substance comprising:

applying to a wetted said substance an effective amount of the composition comprising (A) a cosmetically acceptable aqueous medium, (B) a washing base comprising at least one anionic surfactant and at least one amphoteric surfactant, (C) at least one water-insoluble carboxylic acid ester chosen from
1)- monoesters derived from reacting saturated and unsaturated, linear and branched monocarboxylic acids with saturated and unsaturated, linear and branched monoalcohols,

- 2)- di- and triesters derived from reacting saturated and unsaturated, linear and branched di- and tricarboxylic acids with saturated and unsaturated, linear and branched monoalcohols,
- 3)- mono-, di- and triesters derived from reacting saturated and unsaturated, linear and branched di- and tricarboxylic acids with saturated and unsaturated, linear and branched dialcohols,
- 4)- monoesters derived from reacting saturated and unsaturated, linear and branched monocarboxylic acids with saturated and unsaturated, linear and branched dialcohols,
- 5)- di- and triesters derived from reacting saturated and unsaturated, linear and branched monocarboxylic acids with unsaturated dialcohols,
- 6)- di- and triesters derived from reacting saturated and unsaturated, linear and branched monocarboxylic acids with saturated dialcohols having more than 4 carbon atoms,
- 7)- mono- and diesters derived from reacting saturated and unsaturated, linear and branched monocarboxylic acids with saturated trialcohols,
- 8)- triesters derived from reacting saturated and unsaturated, linear and branched monocarboxylic acids with saturated trialcohols having more than 3 carbon atoms,
- 9)- mono-, di- and triesters derived from reacting saturated and unsaturated, linear and branched monocarboxylic acids with unsaturated trialcohols,
- 10)- mono-, di- and triesters derived from reacting saturated and unsaturated, linear and branched di- and tricarboxylic acids with saturated and unsaturated, linear and branched trialcohols,

the total number of carbon atoms of said at least one water-insoluble carboxylic acid ester not exceeding 27 if said at least one ester is saturated and not exceeding 50 if said at least one ester comprises at least one unsaturation,
the concentration of said at least one water-insoluble carboxylic acid ester in said composition being greater than 1% weight with respect to the total weight of the composition,
the composition being devoid of cationic surfactant, and
the anionic surfactant:amphoteric surfactant ratio by weight being less than or equal to 3:1,

optionally leaving said composition in said keratinous substances for a chosen time, and
rinsing with water.

76. A process according to claim 75 wherein said keratinous substance is hair.--

REMARKS

Claims 1 through 23 have been cancelled without prejudice or disclaimer and their subject matter rewritten as new claims 24-76. After entering this preliminary amendment, claims 24 through 76 are pending. Claims 24 through 76 have been added to place the claims in better conformity with U.S. patent practice. Support for new claims 24 through 76 can be found in the specification as filed and original claims 1 through 23. Therefore, no issue of new matter is raised. Accordingly,

Attorney Docket No. 05725.0927-00
Application No. Unassigned

Applicants respectfully request examination of this application and timely allowance of the pending claims.

If there is any fee due in connection with the filing of this Preliminary Amendment, please charge the fee to our Deposit Account No. 06-0916.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,
GARRETT & DUNNER, L.L.P.

By:



Thomas L. Irving
Reg. No. 28,619

Dated: August 3, 2001

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WO 00/45781

PCT/FR00/00271

1

DETERGENT COSMETIC COMPOSITIONS AND USE

The present invention relates to novel cosmetic compositions with improved properties intended simultaneously for cleaning and for conditioning keratinous substances, such as the hair, and comprising, in a cosmetically acceptable aqueous vehicle, at least one anionic surfactant, at least one amphoteric surfactant and at least one specific carboxylic acid ester, the anionic surfactant/amphoteric surfactant ratio by weight being less than or equal to 3. The invention also relates to the use of said compositions in the abovementioned cosmetic application.

Detergent compositions (such as shampoos) based essentially on conventional surface-active agents of, in particular, anionic, non-ionic and/or amphoteric type, but more particularly of anionic type, are commonly used for cleaning and/or washing keratinous substances, such as the hair. These compositions are applied to wet hair and the foam generated by massaging or rubbing with the hands makes it possible, after rinsing with water, to remove the various types of dirt initially present on the hair or the skin.

These base compositions certainly have a good washing power but the intrinsic cosmetic properties which are attached to them remain fairly weak, however,

in particular because of the fact that the relatively aggressive nature of such a cleaning treatment can, in the long term, result in more or less marked damage to the hair fiber, related in particular to the gradual
5 removal of the lipids or proteins held in or at the surface of the hair fiber.

Consequently, in order to improve the cosmetic properties of the above detergent compositions, and more particularly of those which are
10 called upon to be applied to sensitized hair (i.e. hair which is found to be damaged or embrittled, in particular under the chemical action of atmospheric agents and/or of hair treatments, such as permanent waves, dyeings or bleachings), it is now usual to
15 introduce, into the latter, additional cosmetic agents, known as conditioning agents, intended mainly to repair or limit the harmful or undesirable effects induced by the various treatments or attacks to which the hair fibers are more or less repeatedly subjected. These
20 conditioning agents can, of course, also improve the cosmetic behavior of natural hair.

Provision has already been made to use insoluble conditioning agents for this purpose. These insoluble compounds exhibit the disadvantage of being
25 difficult to maintain as an even dispersion in the medium.

Provision has already been made, in order to maintain them in suspension, to use ester or ether derivatives comprising a long chain (dispersing agents) or polysaccharides, such as xanthan gum (gelling agents). However, the dispersing agents exhibit problems of crystallization, which sometimes result in a change (increase) in the viscosity of the compositions over time; the gelling agents also exhibit disadvantages, namely, on the one hand, that the foam of the detergent compositions comprising polysaccharides is difficult to develop (poor initiation of foam) and that, on the other hand, the compositions do not have a smooth texture and flow in waves, which is not very highly appreciated by the users. Furthermore, these various agents do not make it possible to obtain transparent or clear compositions.

The aim of the present invention is to provide compositions which do not exhibit the disadvantages of the abovementioned compositions.

The conditioning agents must also be carried on the treated keratinous substances with a view to conferring on them, depending on the application, properties of softness, of gloss and of disentangling.

Thus, following considerable research carried out on the question, it has now been found by the Applicant Company that, by using a specific washing base, at least one specific carboxylic acid ester, it

is possible to obtain stable detergent compositions exhibiting excellent cosmetic properties, in particular the disentangling and the sleekness of the treated hair, and having good properties during use, such as a
5 good intrinsic washing power and a good foaming power.

The industrial implementation is extremely easy and the cosmetic properties of the shampoos are excellent.

The compositions obtained are stable on
10 storage, without requiring the addition of an agent for dispersing and/or suspending the ester according to the invention.

In the absence of additional insoluble compounds, the compositions obtained are also
15 transparent. They can comprise significant amounts of carboxylic acid ester while retaining good transparency and while having good cosmetic properties.

The compositions in accordance with the invention confer on the hair, in particular after
20 rinsing, a notable treating effect which is displayed in particular by an ease of disentangling and a contribution of sleekness, softness and suppleness, without any feeling of greasiness.

Thus, a subject-matter of the present
25 invention is novel detergent and conditioning cosmetic compositions, characterized in that they comprise, in a cosmetically acceptable aqueous medium, (A) a washing

base comprising at least one anionic surfactant and at least one amphoteric surfactant, (B) at least one water-insoluble carboxylic acid ester chosen from

- 1) - monoesters of saturated or unsaturated and linear or branched monocarboxylic acids and of saturated or unsaturated and linear or branched monoalcohols,
- 2) - di- or triesters of saturated or unsaturated and linear or branched di- or tricarboxylic acids and of saturated or unsaturated and linear or branched monoalcohols,
- 3) - mono-, di- or triesters of saturated or unsaturated and linear or branched di- or tricarboxylic acids and of saturated or unsaturated and linear or branched dialcohols,
- 4) - monoesters of saturated or unsaturated and linear or branched monocarboxylic acids and of saturated or unsaturated and linear or branched dialcohols,
- 5) - di- or triesters of saturated or unsaturated and linear or branched monocarboxylic acids and of unsaturated dialcohols of any kind or of saturated dialcohols having more than 4 carbon atoms,
- 6) - mono- or diesters of saturated or unsaturated and linear or branched monocarboxylic acids and of saturated trialcohols,
- 7) - triesters of saturated or unsaturated and linear or branched monocarboxylic acids and of saturated trialcohols having more than 3 carbon atoms,

8)- mono-, di- or triesters of saturated or unsaturated and linear or branched monocarboxylic acids and of unsaturated trialcohols,

9)- mono-, di- or triesters of saturated or unsaturated
5 and linear or branched di- or tricarboxylic acids and of saturated or unsaturated and linear or branched trialcohols,

the total number of carbon atoms of the ester not exceeding 27 if it is not unsaturated and 50 if it
10 comprises at least one unsaturation,
the concentration of the ester being greater than 1%,
the composition being devoid of cationic surfactant,
and
the anionic surfactant/amphoteric surfactant ratio by
15 weight being less than or equal to 3.

The presence of cationic surfactants in the compositions according to the invention results in a deterioration in the cosmetic performances of said compositions.

20 Another subject-matter of the invention is the use in cosmetics of the above compositions for cleaning and/or removing makeup from and/or conditioning keratinous substances, such as the hair and the skin.

25 The term "devoid of cationic surfactant" is understood to mean that the composition comprises less than 0.3% by weight of cationic surfactant with respect

to the total weight of the composition, preferably less than 0.1% by weight, and more particularly that the concentration of cationic surfactant is zero. The term "cationic surfactant" does not denote cationic surface-active polymers. Surface-active polymers are not excluded from the composition.

A- WASHING BASE:

The washing base comprises one or more anionic surfactants and one or more amphoteric surfactants.

(i) Anionic surfactant(s):

Their nature does not assume a really critical character within the context of the present invention.

Thus, mention may in particular be made, by way of example of anionic surfactants which can be used, alone or as mixtures, in the context of the present invention, of (nonlimiting list) the salts (in particular alkali metal, especially sodium, salts, ammonium salts, amine salts, aminoalcohol salts or magnesium salts) of the following compounds: alkyl sulfates, alkyl ether sulfates, alkylamido ether sulfates, alkylaryl polyether sulfates or monoglyceride sulfates; alkyl sulfonates, alkyl phosphates, alkylamide sulfonates, alkylaryl sulfonates, α -olefin sulfonates or paraffin sulfonates; alkyl sulfosuccinates, alkyl ether sulfosuccinates or

alkylamide sulfosuccinates; alkylsulfosuccinamates;
 alkyl sulfoacetates; alkyl ether phosphates;
 acylsarcosinates; acylisethionates and N-acyltaurates,
 the alkyl or acyl radical of all these different
 5 compounds preferably comprising from 12 to 20 carbon
 atoms and the aryl radical preferably denoting a phenyl
 or benzyl group. Mention may also be made, among the
 anionic surfactants which can be further used, of the
 salts of fatty acids, such as the salts of oleic,
 10 ricinoleic, palmitic or stearic acid, or the acids of
 coconut oil or of hydrogenated coconut oil; or
 acyllactylates in which the acyl radical comprises 8 to
 20 carbon atoms. Use may also be made of weakly anionic
 surfactants, such as alkyl D-galactoside uronic acids
 15 and their salts, as well as of polyoxyalkylenated (C₆-
 C₂₄)alkyl ether carboxylic acids, polyoxyalkylenated
 (C₆-C₂₄)alkylaryl ether carboxylic acids,
 polyoxyalkylenated (C₆-C₂₄)alkylamido ether carboxylic
 acids and their salts, in particular those comprising
 20 from 2 to 50 ethylene oxide groups, and their mixtures.

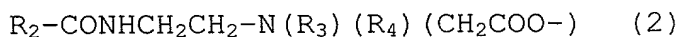
Use is preferably made of an anionic surface-
 active agent chosen from sodium, triethanolamine or
 ammonium (C₁₂-C₁₄)alkyl sulfates, sodium (C₁₂-C₁₄)alkyl
 ether sulfates oxyethylenated with 2.2 mol of ethylene
 25 oxide, sodium cocoylisethionate and sodium α -(C₁₄-C₁₆)-
 olefin sulfonate.

Among the anionic surfactants, it is preferable to use, according to the invention, alkyl sulfate and alkyl ether sulfate salts and their mixtures.

5 (iii) Amphoteric surfactant(s):

The amphoteric surface-active agents, the nature of which does not assume any critical character within the context of the present invention, may be in particular (nonlimiting list) derivatives of aliphatic
 10 secondary or tertiary amines in which the aliphatic radical is a linear or branched chain comprising 8 to 22 carbon atoms and comprising at least one water-solubilizing anionic group (for example carboxylate, sulfonate, sulfate, phosphate or phosphonate); mention
 15 may also be made of (C₈-C₂₀)alkyl betaines, sulfobetaines, (C₈-C₂₀)alkyl amido(C₁-C₆)alkyl betaines or (C₈-C₂₀)alkyl amido(C₁-C₆)alkyl sulfobetaines.

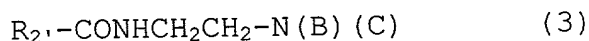
Mention may be made, among the amine derivatives, of the products sold under the name
 20 Miranol[®], as disclosed in Patents US-2,528,378 and US-2,781,354 and with structures:



25 in which: R₂ denotes an alkyl radical derived from an acid R₂-COOH present in hydrolyzed coconut oil or a heptyl, nonyl or undecyl radical, R₃ denotes a

β -hydroxyethyl group and R_4 denotes a carboxymethyl group;

and



5 in which:

B represents $-CH_2CH_2OX'$, C represents $-(CH_2)_z-Y'$, with $z = 1$ or 2 ,

X' denotes the $-CH_2CH_2-COOH$ group or a hydrogen atom

10 Y' denotes $-COOH$ or the $-CH_2-CHOH-SO_3H$ radical

R_2 denotes an alkyl radical of an acid R_9-COOH present in hydrolyzed linseed oil or coconut oil, an alkyl radical, in particular a C_7 , C_9 , C_{11} or C_{13} radical, a C_{17} alkyl radical and its iso form, or an unsaturated C_{17}

15 radical.

These compounds are classified in the CTFA dictionary, 5th Edition, 1993, under the names Disodium Cocoamphodiacetate, Disodium Lauroamphodiacetate, Disodium Caprylamphodiacetate, Disodium

20 Capryloamphodiacetate, Disodium Cocoamphodipropionate, Disodium Lauroamphodipropionate, Disodium Caprylamphodipropionate, Disodium Capryloamphodipropionate, Lauroamphodipropionic acid and Cocoamphodipropionic acid.

25 Mention may be made, by way of example, of the cocoamphodiacetate sold under the trade name Miranol[®] C2M concentrate by the company Rhône-Poulenc.

According to the present invention, it is more particularly preferred to use the amphoteric surface-active agents belonging to the group of the betaines, such as the alkyl betaines, in particular the cocoyl betaine sold under the name "Dehyton AB 30" as an aqueous solution comprising 30% of AM by the company Henkel, or the alkylamido betaines, such as Tegobetaine® F50, sold by the company Goldschmidt.

The minimum amount of washing base is that just sufficient to confer a satisfactory foaming and/or detergent power on the final composition, and excessively large amounts of washing base do not really contribute additional advantages.

Thus, according to the invention, the washing base can represent from 4% to 50% by weight, preferably from 6% to 35% by weight and more preferably still from 8% to 25% by weight of the total weight of the final composition.

By way of indication, the detergent compositions in accordance with the invention generally exhibit the following compositions:

(i) anionic surfactant(s): from 3 to 30% by weight, preferably from 5 to 20% by weight, with respect to the total weight of the detergent composition;

(ii) amphoteric surfactant(s): from 1 to 20% by weight, preferably from 1.5 to 15% by weight, with respect to the total weight of the composition.

The anionic surfactant/amphoteric surfactant ratio by weight is preferably between 0.2 and 3, more particularly between 0.4 and 2.5.

B- Carboxylic acid esters

The water-insoluble carboxylic acid esters according to the invention are insoluble in water at a concentration of greater than or equal to 0.1% by weight in water at 25°C, that is to say that they do not form a transparent isotropic solution in water.

The water-insoluble carboxylic acid esters according to the invention can comprise hydroxyl groups.

The carboxylic acid esters according to the invention are generally chosen from:

1)- monoesters of saturated or unsaturated and linear or branched C₁-C₄₉, preferably C₃-C₃₀, monocarboxylic acids and of saturated or unsaturated and linear or branched C₁-C₄₉, preferably C₂-C₃₀, monoalcohols.

Mention may be made, among these monomers, of cetyl lactate, C₁₂-C₁₅ alkyl lactate, isostearyl lactate, lauryl lactate, linoleyl lactate, oleyl lactate, (iso)stearyl octanoate, isocetyl octanoate, octyl octanoate, cetyl octanoate, isodecyl octanoate, isononyl isononanoate, octyl isononanoate, 2-ethylhexyl

isononate, octyl palmitate, octyl pelargonate, octyl
 stearate, octyldodecyl erucate, oleyl erucate, ethyl
 and isopropyl palmitates, 2-ethylhexyl palmitate,
 isopropyl myristate, butyl myristate, hexyl stearate,
 5 butyl stearate, isobutyl stearate, hexyl laurate or
 tridecyl erucate.

2)- di- or triesters of saturated or unsaturated and
 linear or branched C_2-C_{48} , preferably C_3-C_{30} , di- or
 tricarboxylic acids and of saturated or unsaturated and
 10 linear or branched C_1-C_{49} , preferably C_2-C_{30} ,
 monoalcohols.

Mention may be made, among these esters, of
 diethyl sebacate, diisopropyl sebacate, diisopropyl
 adipate, di(n-propyl) adipate, dioctyl adipate, dioctyl
 15 maleate, triisopropyl citrate, trioctyl citrate or
 dioctyl malate.

3)- mono-, di- or triesters of saturated or unsaturated
 and linear or branched C_2-C_{49} , preferably C_3-C_{30} , di- or
 tricarboxylic acids and of saturated or unsaturated and
 20 linear or branched C_1-C_{49} , preferably C_2-C_{30} , dialcohols.

Mention may be made, among these esters, of
 propylene glycol dicaprylate and dicaprate.

4)- monoesters of saturated or unsaturated and linear
 or branched C_1-C_{48} , preferably C_3-C_{30} , monocarboxylic
 25 acids and of saturated or unsaturated and linear or
 branched C_2-C_{49} , preferably C_3-C_{30} , dialcohols.

Mention may be made, among these esters, of propylene glycol monostearate, tripropylene glycol monostearate, diethylene glycol monostearate or diethylene glycol monooleate.

- 5 5)- di- or triesters of saturated or unsaturated and linear or branched C_1-C_{46} , preferably C_3-C_{30} , monocarboxylic acids and of unsaturated C_2-C_{48} , preferably C_4-C_{30} , dialcohols or of saturated dialcohols having more than 4 carbon atoms and preferably C_5-C_{48}
- 10 dialcohols and more particularly still C_5-C_{30} dialcohols.

- Mention may be made, among these esters, of neopentyl glycol dilaurate, dipropylene glycol dioctanoate, 2-butene-1,4-diol dioctanoate or 2-butene-1,4-diol distearate.
- 15

6)- mono- or diesters of saturated or unsaturated and linear or branched C_1-C_{47} , preferably C_3-C_{30} , monocarboxylic acids and of saturated C_3-C_{49} , preferably C_3-C_{30} , trialcohols.

- 20 Mention may be made, among these esters, of glyceryl undecylenate, glyceryl monolaurate, glyceryl dilaurate, glyceryl monocaprinate, glyceryl monocaprylate, glyceryl monostearate, glyceryl monooleate or glyceryl dioleate.

- 25 7)- triesters of saturated or unsaturated and linear or branched C_1-C_{46} , preferably C_3-C_{30} , monocarboxylic acids and of saturated trialcohols having more than 3 carbon

atoms and preferably C_4 - C_{47} trialcohols and more particularly C_4 - C_{30} trialcohols.

Mention may be made, among these esters, of trimethylolpropane trihexanoate or 1,2,6-hexanetriol

tripentanoate.

8)- mono-, di- or triesters of saturated or unsaturated and linear or branched C_1 - C_{47} , preferably C_3 - C_{30} , monocarboxylic acids and of unsaturated C_3 - C_{49} , preferably C_3 - C_{30} , trialcohols.

10 Mention may be made, among these esters, of 2,5-dimethyl-3-hexyne-1,2,5-triol laurate.

9)- mono-, di- or triesters of saturated or unsaturated and linear or branched C_2 - C_{47} , preferably C_3 - C_{30} , di- or tricarboxylic acids and of saturated or unsaturated and
15 linear or branched C_3 - C_{48} , preferably C_3 - C_{30} , trialcohols.

Mention may be made, among these esters, of glyceryl citrate or glyceryl monosuccinate.

The carboxylic acid esters are more
20 particularly chosen from the compounds from classes 1), 2), 4), 6) and 9).

The carboxylic acid ester or esters can be used in the compositions in accordance with the invention in concentrations generally of between 1.2
25 and 15% and preferably between 1.5 and 10% by weight with respect to the total weight of the composition and more particularly still from 2 to 8% by weight.

According to an embodiment of the invention, the compositions can additionally comprise a water-soluble salt and/or a water-soluble mono- or polyhydroxyl alcohol.

5 According to another embodiment of the invention, the compositions comprising monoesters of monocarboxylic acid and of monoalcohol, the total carbon number of which is greater than or equal to 24 and less than or equal to 27, mono- and diesters of
10 saturated monoacids and of glycerol, the total carbon number of which is greater than or equal to 17, or diesters of branched monoalcohols and of unsaturated diacids generally comprise a water-soluble salt and/or a water-soluble mono- or polyhydroxyl alcohol.

15 The term "water-soluble in water" is understood to mean compounds which are soluble in water at a concentration of greater than or equal to 0.1% by weight in water at 25°C, that is to say that they form a transparent isotropic solution.

20 The water-soluble salts according to the invention are preferably salts of mono- or divalent metals and of an inorganic or organic acid.

 Mention may in particular be made of sodium chloride, potassium chloride, calcium chloride,
25 magnesium sulfate, sodium citrate or the sodium salts of phosphoric acid. Preferably, monovalent metal salts are used. Sodium chloride is particularly preferred.

The water-soluble salts are generally present at concentrations of between 0.1 and 10% by weight and preferably between 0.5 and 5% by weight with respect to the total weight of the composition.

5 The water-soluble mono- or polyhydroxyl alcohols are in particular lower C₁-C₆ alcohols, such as ethanol, isopropanol, tert-butanol or n-butanol, polyols, such as alkylene glycols, for example propylene glycol or glycerol, and polyalkylene glycols, 10 or glycol ethers.

 The water-soluble alcohol or alcohols can be used in concentrations generally of between 0.1 and 20% by weight and more particularly between 0.2 and 10% by weight with respect to the total weight of the 15 composition.

 The detergent compositions according to the invention exhibit a final pH generally of between 3 and 8. This pH is preferably between 4 and 6.5. The pH can be conventionally adjusted to the desired value by 20 addition of a base (organic or inorganic) to the composition, for example sodium hydroxide, aqueous ammonia or a primary, secondary or tertiary (poly)amine, such as monoethanolamine, diethanolamine, triethanolamine, isopropanolamine or 1,3- 25 propanediamine, or alternatively by addition of an inorganic or organic acid, preferably citric acid or hydrochloric acid.

The cosmetically acceptable aqueous medium can be composed solely of water or of a mixture of water and of a cosmetically acceptable solvent.

The compositions in accordance with the invention can comprise, in addition to the combination defined above, viscosity regulating agents, such as thickening agents. Mention may in particular be made of scleroglucans, xanthan gums, fatty acid alkanolamides, alkyl ether carboxylic acid alkanolamides optionally oxyethylenated with up to 5 mol of ethylene oxide, such as the product sold under the name "Aminol A15" by the company Chem Y, crosslinked poly(acrylic acid)s and crosslinked acrylic acid/C₁₀-C₃₀ alkyl acrylate copolymers. These viscosity regulating agents are used in the compositions according to the invention in proportions which can range up to 10% by weight with respect to the total weight of the composition.

The compositions in accordance with the invention can also comprise up to 5% of pearlescent or opacifying agents well known in the state of the art, such as, for example, fatty alcohols, sodium or magnesium palmitates, sodium or magnesium stearates and hydroxystearates, fatty alcohol, acylated derivatives comprising a fatty chain, such as ethylene glycol or polyethylene glycol distearates, or ethers comprising fatty chains, such as, for example, distearyl ether or 1-(hexadecyloxy)-2-octadecanol.

The compositions in accordance with the invention can additionally optionally comprise other agents having the effect of improving the cosmetic properties of hair or of the skin without, however, detrimentally affecting the stability of the compositions. Mention may be made, in this respect, of cationic surface-active agents, anionic or nonionic or cationic or amphoteric polymers, proteins, protein hydrolysates, ceramides, pseudoceramides, fatty acids comprising linear or branched C₁₆-C₄₀ chains, such as 18-methyleicosanoic acid, hydroxy acids, vitamins, panthenol, volatile or nonvolatile silicones, other than the silicones of the invention, which are soluble and insoluble in the medium, UV screening agents, moisturizing agents, antidandruff or antiseborrheic agents, agents for combating free radicals, and their mixtures.

According to a particularly preferred form, the compositions according to the invention additionally comprise at least one cationic polymer.

The cationic polymers which can be used in accordance with the present invention can be chosen from all those already known per se as improving the cosmetic properties of hair treated with detergent compositions, namely, in particular, those disclosed in patent application EP-A-0,337,354 and in French patent

applications FR-A-2,270,846, 2,383,660, 2,598,611,
2,470,596 and 2,519,863.

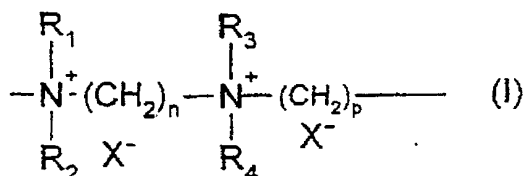
In a still more general way, within the
meaning of the present invention, the expression
5 "cationic polymer" denotes any polymer comprising
cationic groups and/or groups which can be ionized to
cationic groups.

The cationic polymers which can be used
according to the invention preferably have a cationic
10 charge density of greater than or equal to 0.2 meq/g
and more particularly of between 0.2 and 8.5 meq/g.

Among all the cationic polymers capable of
being used in the context of the present invention,
preference is given to the employment of quaternary
15 derivatives of cellulose ether, such as the products
sold under the name "JR 400" by the company Union
Carbide Corporation, cyclopolymers, in particular
diallyldimethylammonium salt homopolymers and
copolymers of diallyldimethylammonium salt and of
20 acrylamide, in particular the chlorides, sold under the
names "Merquat 100", "Merquat 550" and "Merquat S" by
the company Merck, cationic polysaccharides and more
particularly guar gums modified by
2,3-epoxypropyltrimethylammonium chloride, sold, for
25 example, under the name "Jaguar C13S" by the company
Meyhall, optionally crosslinked homopolymers and
copolymers of (meth)acryloyloxyethyltrimethylammonium

salt, sold by the company Allied Colloids as a 50% solution in mineral oil under the trade names Salcare SC92 (crosslinked copolymer of methacryloyloxyethyltrimethylammonium chloride and of acrylamide) and Salcare SC95 (crosslinked homopolymer of methacryloyloxyethyltrimethylammonium chloride), or quaternary copolymers of vinylpyrrolidone and of vinylimidazole salt, such as the products sold by BASF under the names Luviquat FC 370, Luviquat FC 550, Luviquat FC 905 and Luviquat HM-552.

Use may also be made of polymers which are composed of repeat units corresponding to the formula:



in which R₁, R₂, R₃ and R₄, which are identical or different, denote an alkyl or hydroxyalkyl radical having from 1 to 4 carbon atoms approximately, n and p are integers varying from 2 to 20 approximately and X⁻ is an anion derived from an inorganic or organic acid.

A particularly preferred compound of formula (I) is that in which R₁, R₂, R₃ and R₄ represent a methyl radical and n = 3, p = 6 and X = Cl, known as Hexadimethrine chloride according to the INCI (CTFA) nomenclature.

According to the invention, the cationic polymer or polymers can represent from 0.001% to 10% by

weight, preferably from 0.005% to 5% by weight and more preferably still from 0.01% to 3% by weight of the total weight of the final composition.

The compositions according to the invention
5 can also comprise foam synergists, such as C₁₀-C₁₈ 1,2-alkanediols or fatty alkanolamides derived from mono- or from diethanolamine.

Of course, a person skilled in the art will take care to choose this or these optional additional
10 compounds and/or their amounts so that the solubility of the carboxylic acid esters according to the invention, the stability of the composition and the cosmetic properties intrinsically attached to the composition in accordance with the invention are not,
15 or not substantially, detrimentally affected by the envisaged addition or additions. The addition of certain compounds, such as pearlescent agents, can render the composition nontransparent.

The transparency can be measured by the
20 turbidity with a Hach Model 2100 P turbidimeter at 25°C (the device is calibrated with formazine). The turbidity of the compositions according to the invention (in the absence of additional insoluble compounds) is then generally between 0.05 and 100 NTU
25 and preferably less than 50 NTU. When the ester according to the invention is in the form of dispersed

particles, the size of these particles is preferably less than 5 nanometers.

The foaming power of the compositions according to the invention, characterized by a foam height, is generally greater than 75 mm, preferably greater than 100 mm, measured according to the modified Ross-Miles method (NF T 73-404/ISO696).

The modifications to the method are as follows:

The measurement is carried out at a temperature of 22°C with osmosed water. The concentration of the solution is 2 g/l. The height of the drop is 1 m. The amount of composition which drops is 200 ml. These 200 ml of composition falls in a measuring cylinder with a diameter of 50 mm containing 50 ml of the composition to be tested. The measurement is carried out 5 minutes after the composition has finished being run in.

These compositions can be provided in the form of more or less thickened liquids, of creams or of gels and they are mainly suitable for washing or caring for keratinous substances, in particular the hair and the skin and more particularly still the hair.

Another subject-matter of the invention is a process for washing and for conditioning keratinous substances, such as, in particular, the hair, which consists in applying, to wetted said substances, an effective amount of the composition as defined above

and in then rinsing with water, after an optional leave-in time.

The compositions according to the invention are preferably used as shampoos for washing and conditioning the hair and they are applied, in that case, to wet hair in amounts which are effective for washing it, and the foam generated by massaging or rubbing with the hands is subsequently removed, after an optional leave-in time, by rinsing with water, it being possible for the operation to be repeated one or more times.

The compositions in accordance with the invention can also be used as shower gels for washing and conditioning the hair and/or the skin, in which case they are applied to the wet skin and/or hair and are rinsed after application.

Concrete but in no way limiting examples illustrating the invention will now be given.

EXAMPLE 1

Four shampoo compositions in accordance with the invention were prepared.

	1	2	3	4
- Sodium lauryl ether sulfate (70/30 C ₁₂ /C ₁₄), comprising 2.2 mol of ethylene oxide, as an aqueous solution comprising 70% of AM	15 g AM	15 g AM	5.25 g AM	15 g AM
- Cocoyl betaine comprising 30% of AM (Dehyton AB 30)	5 g AM	5 g AM	9 g AM	5 g AM
- Isopropyl palmitate	2 g			
- Isodecyl neopentanoate		2 g		6 g
- Isopropyl myristate			2 g	
- Diallyldimethylammonium chloride homopolymer as an aqueous solution comprising 40% of AM (Merquat 100 from Calgon)	0.4 g AM	0.4 g AM	0.4 g AM	0.4 g AM
- NaCl	4 g	4 g	4 g	4 g
- Fragrance, preservative	q.s.	q.s.	q.s.	q.s.

1000000 500000000

- Hydrochloric acid, q.s. pH	6.2	6.3	6.8	6.3
- Demineralized water, q.s.	100g	100g	100g	100g
Turbidity (NTU)	41.7	11.9	8.5	7

Composition 1 to 4 according to the invention are transparent and stable (the transparency is evaluated by turbidimetry in NTU (Nephelometric
5 turbidity units)).

Hair treated with these compositions readily disentangles and is smooth from the root of the hair to the tip.

EXAMPLE 2

10 Four shampoo compositions in accordance with the invention were prepared.

	5	6	7	8	9
- Sodium lauryl ether sulfate (70/30 C ₁₂ /C ₁₄), comprising 2.2 mol of ethylene oxide, as an aqueous solution comprising 70% of AM (AM = active material)	15 g AM	15 g AM	10 g AM	15 g AM	15 g AM

- Cocoyl betaine comprising 30% of AM (Dehyton AB 30)	5 g AM	5 g AM	10 g AM	5 g AM	5 g AM
- Octyldodecyl ricinoleate				1.2 g	
- Myristyl lactate		2 g			
- Isopropyl myristate	2 g		6 g		
- Di(diisopropyl linoleate)					1.2 g
- Polyquaternium-10 (JR 400 from Union Carbide)	0.4 g AM	0.4 g AM		0.4 g AM	
- NaCl					4 g
- Fragrance, preservative	q.s.	q.s.	q.s.	q.s.	q.s.
- Hydrochloric acid, q.s. pH	6.1	6.1	6.1	6.5	6.5
- Demineralized water, q.s.	100 g	100 g	100 g	100 g	100 g
Turbidity (NTU)	2.9	4.2	2.9	6.5	8.2

Composition 5 to 8 according to the invention are transparent and stable.

Hair treated with these compositions readily disentangles and is smooth from the root of the hair to
5 the tip.

CLAIMS

1. A detergent and conditioning cosmetic composition, characterized in that it comprises, in a
5 cosmetically acceptable aqueous medium, (A) a washing base comprising at least one anionic surfactant and at least one amphoteric surfactant, (B) at least one water-insoluble carboxylic acid ester chosen from
- 1)- monoesters of saturated or unsaturated and linear
10 or branched monocarboxylic acids and of saturated or unsaturated and linear or branched monoalcohols,
 - 2)- di- or triesters of saturated or unsaturated and linear or branched di- or tricarboxylic acids and of saturated or unsaturated and linear or branched
15 monoalcohols,
 - 3)- mono-, di- or triesters of saturated or unsaturated and linear or branched di- or tricarboxylic acids and of saturated or unsaturated and linear or branched dialcohols,
 - 20 4)- monoesters of saturated or unsaturated and linear or branched monocarboxylic acids and of saturated or unsaturated and linear or branched dialcohols,
 - 5)- di- or triesters of saturated or unsaturated and linear or branched monocarboxylic acids and of
25 unsaturated dialcohols of any kind or of saturated dialcohols having more than 4 carbon atoms,

- 6)- mono- or diesters of saturated or unsaturated and linear or branched monocarboxylic acids and of saturated trialcohols,
- 7)- triesters of saturated or unsaturated and linear or branched monocarboxylic acids and of saturated trialcohols having more than 3 carbon atoms,
- 8)- mono-, di- or triesters of saturated or unsaturated and linear or branched monocarboxylic acids and of unsaturated trialcohols,
- 9)- mono-, di- or triesters of saturated or unsaturated and linear or branched di- or tricarboxylic acids and of saturated or unsaturated and linear or branched trialcohols,
- the total number of carbon atoms of the ester not exceeding 27 if it is not unsaturated and 50 if it comprises at least one unsaturation,
- the concentration of the ester being greater than 1%, the composition being devoid of cationic surfactant, and
- the anionic surfactant/amphoteric surfactant ratio by weight being less than or equal to 3.

2. The composition as claimed in claim 1, characterized in that said washing base is present at a content by weight of between 4% and 50% by weight with respect to the total weight of the composition, preferably of between 6 and 35% by weight and more preferably of between 8% and 25% by weight.

3. The composition as claimed in either one of claims 1 and 2, characterized in that the anionic surfactant(s) is (are) present in concentrations ranging from 3 to 30% by weight, preferably from 5 to 20% by weight, with respect to the total weight of the composition.

4. The composition as claimed in any one of claims 1 to 3, characterized in that the amphoteric surfactant(s) is (are) present in concentrations ranging from 1 to 20% by weight, preferably from 1.5 to 15% by weight, with respect to the total weight of the composition.

5. The composition as claimed in any one of claims 1 to 4, characterized in that the anionic surfactant/amphoteric surfactant ratio by weight is between 0.2 and 3 and more particularly between 0.4 and 2.5.

6. The composition as claimed in any one of claims 1 to 5, characterized in that said esters are chosen from:

- 1)- monoesters of saturated or unsaturated and linear or branched C_1-C_{49} , preferably C_3-C_{30} , monocarboxylic acids and of saturated or unsaturated and linear or branched C_1-C_{49} , preferably C_2-C_{30} , monoalcohols,
- 2)- di- or triesters of saturated or unsaturated and linear or branched C_2-C_{48} , preferably C_3-C_{30} , di- or tricarboxylic acids and of saturated or unsaturated and

linear or branched C_1-C_{49} , preferably C_2-C_{30} ,
monoalcohols,

3)- mono-, di- or triesters of saturated or unsaturated
and linear or branched C_2-C_{49} , preferably C_3-C_{30} , di- or
5 tricarboxylic acids and of saturated or unsaturated and
linear or branched C_1-C_{49} , preferably C_2-C_{30} , dialcohols,

4)- monoesters of saturated or unsaturated and linear
or branched C_1-C_{48} , preferably C_3-C_{30} , monocarboxylic
acids and of saturated or unsaturated and linear or
10 branched C_2-C_{49} , preferably C_3-C_{30} , dialcohols,

5)- di- or triesters of saturated or unsaturated and
linear or branched C_1-C_{46} , preferably C_3-C_{30} ,
monocarboxylic acids and of unsaturated C_2-C_{48} ,
preferably C_4-C_{30} , dialcohols or of saturated dialcohols
15 having more than 4 carbon atoms and preferably C_5-C_{48}
dialcohols and more particularly still C_5-C_{30}
dialcohols,

6)- mono- or diesters of saturated or unsaturated and
linear or branched C_1-C_{47} , preferably C_3-C_{30} ,
20 monocarboxylic acids and of saturated C_3-C_{49} , preferably
 C_3-C_{30} , trialcohols,

7)- triesters of saturated or unsaturated and linear or
branched C_1-C_{46} , preferably C_3-C_{30} , monocarboxylic acids
and of saturated trialcohols having more than 3 carbon
25 atoms and preferably C_4-C_{47} trialcohols and more
particularly C_4-C_{30} trialcohols,

8)- mono-, di- or triesters of saturated or unsaturated and linear or branched C_1-C_{47} , preferably C_3-C_{30} , monocarboxylic acids and of unsaturated C_3-C_{49} , preferably C_3-C_{30} , trialcohols,

- 5 9)- mono-, di- or triesters of saturated or unsaturated and linear or branched C_2-C_{47} , preferably C_3-C_{30} , di- or tricarboxylic acids and of saturated or unsaturated and linear or branched C_3-C_{48} , preferably C_3-C_{30} , trialcohols.

- 10 7. The composition as claimed in claim 6, characterized in that said esters are chosen from the compounds from classes 1), 2), 4), 6) and 9).

8. The composition as claimed in either one of claims 6 and 7, characterized in that said esters
15 are chosen from:
cetyl lactate, $C_{12}-C_{15}$ alkyl lactate, isostearyl lactate, lauryl lactate, linoleyl lactate, oleyl lactate, (iso)stearyl octanoate, isocetyl octanoate, octyl octanoate, cetyl octanoate, isodecyl octanoate,
20 isononyl isononanoate, octyl isononanoate, 2-ethylhexyl isononate, octyl palmitate, octyl pelargonate, octyl stearate, octyldodecyl erucate, oleyl erucate, ethyl and isopropyl palmitates, 2-ethylhexyl palmitate, isopropyl myristate, butyl myristate, hexyl stearate,
25 butyl stearate, isobutyl stearate, hexyl laurate or tridecyl erucate,

diethyl sebacate, diisopropyl sebacate, diisopropyl adipate, di(n-propyl) adipate, dioctyl adipate, dioctyl maleate, triisopropyl citrate, trioleyl citrate or dioctyl malate,

- 5 propylene glycol monostearate, tripropylene glycol monostearate, diethylene glycol monostearate or diethylene glycol monooleate, glyceryl undecylenate, glyceryl monolaurate, glyceryl dilaurate, glyceryl monocaprate, glyceryl
- 10 monocaprylate, glyceryl monostearate, glyceryl monooleate or glyceryl dioleate, glyceryl citrate or glyceryl monosuccinate.

9. The composition as claimed in any one of claims 1 to 8, characterized in that said esters are

15 present in concentrations of between 1.2 and 15% and preferably between 1.5 and 10% by weight with respect to the total weight of the composition and more particularly still from 2 to 8% by weight.

10. The composition as claimed in any one of

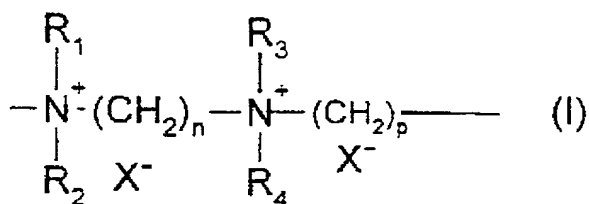
20 claims 1 to 9, characterized in that the composition additionally comprises at least one cationic polymer.

11. The composition as claimed in claim 10, characterized in [lacuna] the cationic polymer is chosen from quaternary derivatives of cellulose ether,

25 diallyldimethylammonium salt homopolymers and copolymers of diallyldimethylammonium salt and of acrylamide, cationic polysaccharides, or quaternary

copolymers of vinylpyrrolidone and of vinylimidazole salt.

12. The composition as claimed in claim 10, characterized in [lacuna] the cationic polymer is
 5 chosen from polymers which are composed of repeat units corresponding to the formula:



in which R_1 , R_2 , R_3 and R_4 , which are identical or different, denote an alkyl or hydroxyalkyl radical
 10 having from 1 to 4 carbon atoms approximately, n and p are integers varying from 2 to 20 approximately and X^- is an anion derived from an inorganic or organic acid.

13. The composition as claimed in any one of claims 10 to 12, characterized in that said cationic
 15 polymer represents from 0.05% to 10% by weight, preferably from 0.1% to 5% by weight and more preferably still from 0.25% to 3% by weight of the total weight of the composition.

14. The composition as claimed in any one of
 20 claims 1 to 13, characterized in that the composition additionally comprises at least one water-soluble salt.

15. The composition as claimed in claim 14, characterized in [lacuna] the water-soluble salts are salts of mono- or divalent metals and of an inorganic
 25 or organic acid.

16. The composition as claimed in either one of claims 14 and 15, characterized in [lacuna] the water-soluble salts are chosen from sodium chloride, potassium chloride, calcium chloride, magnesium sulfate, sodium citrate, or the sodium salts of phosphoric acid.

17. The composition as claimed in any one of claims 14 to 16, characterized in that the water-soluble salts are present at concentrations of between 0.1 and 10% by weight and preferably between 0.5 and 5% by weight with respect to the total weight of the composition.

18. The composition as claimed in any one of claims 1 to 17, characterized in that the composition additionally comprises at least one water-soluble alcohol.

19. The composition as claimed in claim 18, characterized in that the water-soluble alcohols are lower C₁-C₆ alcohols, such as ethanol, isopropanol, tert-butanol or n-butanol, polyols, such as alkylene glycols, for example propylene glycol or glycerol, and polyalkylene glycols, or glycol ethers.

20. The composition as claimed in either one of claims 18 and 19, characterized in that the water-soluble alcohols are used in concentrations generally of between 0.1 and 20% by weight and more particularly

between 0.2 and 10% by weight with respect to the total weight of the composition.

21. The composition as claimed in any one of claims 1 to 20, characterized in that it additionally
5 comprises one or more adjuvants chosen by cationic surface-active agents, anionic or nonionic or amphoteric polymers, proteins, protein hydrolysates, ceramides, pseudoceramides, fatty acids comprising linear or branched C₁₆-C₄₀ chains, such as 18-methyl-
10 eicosanoic acid, hydroxy acids, vitamins, panthenol, volatile or nonvolatile silicones which are soluble or insoluble in the medium, UV screening agents, moisturizing agents, antidandruff or antiseborrheic agents, agents for combating free radicals, opacifying
15 agents, and their mixtures.

22. Use of the composition as defined in any one of claims 1 to 21 for cleaning and/or removing makeup from keratinous substances.

23. A process for washing and for
20 conditioning keratinous substances, such as the hair, which consists in applying, to wetted said substances, an effective amount of the composition as defined in any one of claims 1 to 21 and in then rinsing with water, after an optional leave-in time.

Declaration and Power of Attorney for Patent Application

Déclaration et Pouvoir pour Demand de Brevet

French Language Declaration

En tant que l'inventeur nommé ci-après, je déclare par le présent acte que:

Mon domicile, mon adresse postale et ma nationalité sont ceux figurant ci-dessous à côté de mon nom.

Je crois être le premier inventeur original et unique (si un seul nom est mentionné ci-dessous), ou l'un des premiers co-inventeurs originaux (si plusieurs noms sont mentionnés ci-dessous) de l'objet revendiqué, pour lequel une demande de brevet a été déposée concernant l'invention intitulée

et dont la description est fournie ci-joint à moins que la case suivante n'ait été cochée:

- ☒ a été déposée le _____
sous le numéro de demande des États-Unis ou le
numéro de demande international PCT
_____ et modifiée
_____ (les cas échéant).

Je déclare par le présent acte avoir passé en revue et compris le contenu de la description ci-dessus, revendications comprises, telles que modifiées par toute modification dont il aura été fait référence ci-dessus.

Je reconnais devoir divulguer toute information pertinente à la brevetabilité, comme défini dans le Titre 37, § 1.56 du Code fédéral des réglementations.

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

DETERGENT COSMETIC COMPOSITIONS AND USE

the specification of which is attached hereto unless the following box is checked:

- ☒ was filed on February 4, 2000 as United States Application Number or PCT International Application Number PCT/FR00/00271 and was amended on _____ (if applicable).

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above

I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, § 1.56.

French Language Declaration

Je revendique par le présent acte avoir la priorité étrangère, en vertu du Titre 35, § 119(a)-(d) ou § 365(b) du Code des Etats-Unis, sur toute demande étrangère de brevet ou certificat d'inventeur ou, en vertu du Titre 35, § 365(a) du même Code, sur toute demande internationale PCT désignant au moins un pays autre que les Etats-Unis et figurant ci-dessous et, en cochant la case, j'ai aussi indiqué ci-dessous toute demande étrangère de brevet, tout certificat d'inventeur ou toute demande internationale PCT ayant une date de dépôt précédant celle de la demande à propos de laquelle une priorité est revendiquée.

Prior foreign application(s)
Demandé(s) de brevet antérieure(s)

99/01386	France
(Number)	(Country)
(Numéro)	(Pays)
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(Number)	(Country)
(Numéro)	(Pays)

Je revendique par le présent acte tout bénéfice, en vertu du Titre 35, § 119(e) du Code des Etats-Unis, de toute demande de brevet provisoire effectuée aux Etats-Unis et figurant ci-dessous.

(Application No.)	(Filing Date)
(N° de demande)	(Date de dépôt)
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(Application No.)	(Filing Date)
(N° de demande)	(Date de dépôt)

Je revendique par le présent acte tout bénéfice, en vertu du Titre 35, § 120 du Code des Etats-Unis, de toute demande de brevet effectuée aux Etats-Unis, ou en vertu du Titre 35, § 365(c) du même Code, de toute demande internationale PCT désignant les Etats-Unis et figurant ci-dessous et, dans la mesure où l'objet de chacune des revendications de cette demande de brevet n'est pas divulgué dans la demande antérieure américaine ou internationale PCT, en vertu des dispositions du premier paragraphe du Titre 35, § 112 du Code des Etats-Unis, je reconnais devoir divulguer toute information pertinente à la brevetabilité, comme défini dans le Titre 37, § 1.56 du Code fédéral des réglementations, dont laquelle est devenue disponible entre la date de dépôt de la demande antérieure, et la date de dépôt de la demande nationale ou internationale PCT de la présente demande:

(Application No.)	(Filing Date)
(N° de demande)	(Date de dépôt)
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(Application No.)	(Filing Date)
(N° de demande)	(Date de dépôt)

Je déclare par le présent acte que toute déclaration ci-incluse est, à ma connaissance, véridique et que toute déclaration formulée à partir de renseignements ou de suppositions est tenue pour véridique; et de plus, que toutes ces déclarations ont été formulées en sachant que toute fausse déclaration volontaire ou son équivalent est passible d'une amende ou d'une incarcération, ou des deux, en vertu de la Section 1001 of Title 18 of the Code des Etats-Unis, et que de telles déclarations volontairement fausses risquent de compromettre la validité de la demande de brevet ou du brevet délivré à partir de celle-ci.

I hereby claim foreign priority under Title 35, United States Code, § 119(a)-(d) or § 365(b) of any foreign application(s) for patent or inventor's certificate, or § 365(a) of any PCT International Application which designated at least one country other than the United States, listed below, and have also identified below, by checking the box, any foreign application for patent or inventor's certificate, or PCT International application having a filing date before that of the application on which priority is claimed.

Priority Not Claimed
Droit de priorité non revendiqué

5 February 1999	<input type="checkbox"/>
(Day/Month/Year Filed)	
(Jour/Mois/Anné de dépôt)	
<hr/>	
(Day/Month/Year Filed)	<input type="checkbox"/>
(Jour/Mois/Anné de dépôt)	

I hereby claim the benefit under Title 35, United States Code, § 119(c) of any United States provisional application(s) listed below.

I hereby claim the benefit under Title 35, United States Code, § 120 of any United States application(s), or § 365(c) of any PCT International Application designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT International Application in the manner provided by the first paragraph of Title 35, United States Code, § 112, I acknowledge the duty to disclose any or all information which is material to patentability as defined in Title 37, Code of Federal Regulations, § 1.56 which became available between the filing date of the prior application and the national or PCT International filing date of this application.

(Status) (patented, pending, abandoned)	
(Status) (breveté, en cours d'examen, abandonné)	
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(Status) (patented, pending, abandoned)	
(Status) (breveté, en cours d'examen, abandonné)	

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

French Language Declaration

POUVOIRS: En tant que l'inventeur cité, je désigne par la présente l'(les) avocat(s) et/ou agent(s) suivant(s) pour qu'ils poursuive(nt) la procédure de cette demande de brevet et traite(nt) toute affaire s'y rapportant avec L'Office des brevets et des marques: (mentionner le nom et le numéro d'enregistrement).

POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this patent application and transact all business in the Patent and Trademark Office connected therewith: (list name and registration number):

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Attorney Docket No.: 05725.0927

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